



Aperture Optical Sciences Inc.  
27 Parson Ln. Unit G  
Durham, CT 06422  
(V) 860.316.2589  
(E) info@apertureos.com  
www.apertureos.com

Public Hearing – Monday, March 4, 2013

## FINANCE, REVENUE AND BONDING COMMITTEE

Testimony Submitted by Flemming Tinker, President Aperture Optical Sciences Inc.

Presented by Flemming Tinker

### **S.B. No. 840 - An Act Concerning Next Generation Connecticut**

It is with great enthusiasm that I welcome the opportunity to present testimony regarding S.B. No. 840 - An Act Concerning Next Generation Connecticut. This bill calls for a major expansion of and investment in UConn—increasing enrollments in STEM disciplines, adding new faculty, and improving infrastructure, which, I believe represents strong alignment with our own business growth strategy and that of Connecticut as a whole.

Aperture Optical Sciences Inc. is a high-tech manufacturing start-up company supplying next generation optical equipment for airborne imaging and high-energy lasers. Although we are a small business we've created (13) new jobs in high-tech manufacturing since we were founded in 2010. We are growing at a rate of over 50% per year. We are but one example of small businesses in Connecticut who depend on a strong talent pool of students with expertise in STEM. While our business has only just started, we've already made (1) new STEM hire from UCONN in 2012 and (2) STEM hires from the Connecticut Community College system.

Our business growth strategy depends on hiring and retaining strong candidates. Hiring candidates within Connecticut make sense because:

1. Creating internship programs with Connecticut colleges allows us to find the best candidates
2. New hires from Connecticut are less costly to recruit
3. New hires from Connecticut are more likely to stay in Connecticut thus retention is higher
4. Partnering with Connecticut colleges enables continuing education opportunities
5. Deepening relationships with faculty at Connecticut colleges enables joint research opportunities such as STTR grants. This offsets R&D expense and fuels new business opportunities.

However, none of this is possible, if Connecticut colleges are not producing the students we need. We have already had to look outside of Connecticut to find candidates with expertise or even interest in laser engineering and the optical sciences. We support actions that will change this – in particular, STEM programs at UCONN which develop interest and innovation in photonics, bio-photonics, electro-optics, and ultrafast lasers result in higher paying jobs in emerging technologies that transcend aerospace, semiconductor, communications, biosciences and many other industries that can be critical to Connecticut's future industrial leadership.



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We furthermore believe that successful industrial cluster development cannot succeed without a strong educational base. UCONN is the obvious best candidate for this role. A strong educational partner fosters internships, research grants, development of IP, spin-off companies, and offers a vehicle for further developing the skill sets of Connecticut residents – which leads to higher paying jobs, higher value employees and growing businesses. I believe the proposed 10-year, \$1.5 billion investment in the University of Connecticut's science, technology, engineering and mathematics (STEM) programs, enable such opportunities and will result in growing Connecticut's economy in ways that provide a more attractive future for our people and our economy.

Our company relies upon ready access to a highly skilled workforce of engineers who can help us innovate new products and services, continually improve our operations, and embark on new technological frontiers to effectively compete in the global arena. We furthermore believe that Next Generation Connecticut will spawn a new generation of entrepreneurs who will help sustain Connecticut's economy – as our company is endeavoring to do.

We have reviewed the elements of the bill and potential benefits, and agree that if enacted, the bill will support:

- A 30 percent increase in enrollment at UConn, to include more than 6,500 students and 200 new STEM faculty at the UConn Storrs and UConn Stamford campuses;
- A 70 percent increase in engineering undergraduate enrollments;
- A 47 percent expansion in the total number of STEM graduates;
- Addition of 50 STEM doctoral fellowships and creation of a premier STEM honors program;
- \$1.54 billion in bonding to construct new STEM facilities, build out teaching and research labs, upgrade information technology, and renovate and build additional housing and parking.

Thank you for the opportunity to present testimony on this proposal. If you should require any additional information, please contact us [info@apertureeos.com](mailto:info@apertureeos.com).

Flemming Tinker